

Appl. No. 09/540,128
Amdt. dated April 28, 2006
Reply to Office Action of 11/28/05

PATENT
Docket: 990253

REMARKS

Claims 2-7, 9-13, 18, and 20-21 are pending in the present application. Claims 2-7, 9-13, 18, and 20-21 have been examined and are rejected. In the above amendments, claims 2-7, 9-13, 18, and 20-21 have been amended, and new claims 22-25 have been added. Therefore, after entry of the above amendments, claims 2-7, 9-13, 18, 20-25 will be pending in this application. Applicant believes that the present application is now in condition for allowance, which prompt and favorable action is respectfully requested.

Objected to Claims 12

Claim 12 is objected to because the phrase "a corresponding PN offsets" should be "corresponding PN offsets". This error has been corrected.

Rejection of Claims 2-7, 9-13, 18, and 20-21 Under 35 U.S.C. §102(b)

Claims 2-7, 9-13, 18, and 20-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by Sutton (U.S. Patent No. 5,805,648).

Sutton describes several acquisition schemes for a CDMA system. In the scheme shown in FIG. 3, a window of PN offsets is swept to search for a strong peak that exceeds a detection threshold (THM). If a strong peak is found, then the same window is scanned a predetermined number of times, and the strong peak energy is required to exceed a validation threshold (THV) for each scan in order for acquisition to be declared. If a strong peak is not found or if the strong peak energy is below the validation threshold, then the next window is swept. (See FIG. 3 and column 5, lines 12-21.) In the scheme shown in FIG. 5, if a strong peak is found, then a smaller zoom window is scanned, and the strong peak energy is required to exceed a second detection threshold (THM2). If the strong peak energy exceeds THM2, then the search enters a validation phase for that peak. (See FIG. 5 and column 7, lines 26-32 and 42-43.)

Claim 5 of the present invention, as amended, recites:

"A remote unit in a wireless communication system comprising:
a search engine configured to receive a set of coarse search parameters, to conduct a coarse search of an entire PN space in accordance with the set of coarse search parameters to detect for signals in the wireless communication system, to output search results for the entire PN space, to receive a set of fine search parameters and a selection of portions of the PN

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space, to conduct a fine search of the portions of the PN space in accordance with the set of fine search parameters, and to output search results for the portions of the PN space;

a memory configured to receive and store the search results from the search engine and to output the search results; and

a controller configured to pass the set of coarse search parameters to the search engine, to receive the search results for the entire PN space from the memory, to select the portions of the PN space as likely to contain a pilot signal based on the search results for the entire PN space, and to pass the set of fine search parameters and the selection of the portions of the PN space to the search engine."

Applicant submits that claim 5 is not anticipated by Sutton for at least the following reasons.

First, Sutton does not disclose "a search engine configured ... to conduct a search of an entire PN space in accordance with the set of coarse search parameters," as recited in claim 5. In contrast, Sutton performs a search over one window at a time and stops acquisition at the first peak that exceeds the detection and validation thresholds.

Second, Sutton does not disclose "a controller configured ... to select the portions of the PN space as likely to contain a pilot signal based on the search results for the entire PN space," as recited in claim 5. Instead, Sutton performs a search for one window at a time and, if a strong peak is found, zooms in on that peak. The subsequent searches are thus determined by the search results for one window and not for the entire PN space. Using search results for the entire PN space to select portions of the PN space for fine search, as recited in claim 5, may provide certain advantages such as, e.g., flexibility to focus on strong peaks, to discard peaks that are strong in one PN segment but weak relative to peaks in other PN segment (e.g., as shown in FIG. 7), to select PN offsets for a preferred base station, etc.

For at least the above reasons, Applicant submits that claim 5 is not anticipated by Sutton. Claims 6, 7, 20 and 21 are dependent on claim 5 and are not anticipated by Sutton for at least the reasons noted for base claim 5.

Independent claims 4, 11, 13 and 18 have each been amended to recite the features noted above for claim 5. Claims 2 and 3 are dependent on claim 4, and claims 9, 10 and 12 are dependent on claim 11. These claims are not anticipated by Sutton for at least the reasons noted for claim 5.

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Accordingly, the §102(b) rejection of claims 2-7, 9-13, 18, and 20-21 should be withdrawn.

New Claims

New claims 22-25 recite additional features of the invention and are supported by page 15, line 22 to page 16, line 10. Claims 22-25 are dependent on claim 5 and are not anticipated by Sutton for at least the reasons noted above for base claim 5.

CONCLUSION

In light of the amendments contained herein, Applicant submits that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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